

Mare Island Naval Shipyard, Structural Shop
(Building No. 51)
Near State Highway 37
Vallejo
Solano County
California

HAER No. CA-3-A

HAER
CAL,
48-MARI,
1-F-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

Historic American Engineering Record
National Park Service
Western Region
Department of the Interior
San Francisco, California 94107

Historic American Engineering Record
Mare Island Naval Shipyard, Structural Shop
(Building No. 51)

HAER
CAL,
48-MARI,
1-F-

HAER No. CA-3-A

Location: Southwest of and across Mare Island strait from the city of Vallejo, Solano County, California, and 1.5 miles Southeast of State Highway 37, where it bridges the Napa River.
UTM: 0564100-4217000
Quad: Mare Island

Date of Construction: 1854-1855

Present Owner: United States Navy
Mare Island Naval Shipyard
Vallejo, California 94592

Present Use: Naval Shipyard

Significance: Mare Island was established by Commander (later Admiral) David Glasgow Farragut as the first Naval base in California. Building No. 51 was a prime example of an industrial building constructed by the U.S. Navy in the 19th Century.

History

(For a general history of the Mare Island Naval Shipyard, see HAER No. CA-3)

The exact date of construction of Building No. 51 is not known, but a lithograph of Mare Island done by J. H. Dunlap in December of 1855 shows Building No. 51, along with the Smithery and other buildings. This building was constructed on native soil which is generally a sandy-silt underlain by sandstone and siltstone rock, and were located on a relatively flat area bordering Mare Island Strait and located at the base of a hill.

This structure was built under the direction of Abraham Powell, Jr., Master Carpenter and Joiner, and Mr. Warner, Master Mason, of brick from a tile works in Contra Costa County, California. The structure was two stories high, 400 feet long, and 65 feet wide. The building was built with solid timber trusses spanning the brick side walls and supporting one inch sheathing and a slate roof. The slate tiles were brought to Mare Island from New Bedford, Connecticut, or Boston, Massachusetts. The attic floor was supported on the lower chord of the truss. The truss design can be seen in enclosure 1. Brick cornices supported the gutters, which were rectangular copper conduits which served to collect rainwater to augment the water supply. The area between buildings 51 and 53 contained one of the original 22 cisterns which stored the

collected potable water.

Building 51 housed a variety of shipyard shop and administrative functions through its 124 year history. A shipyard master plan developed in 1863 lists Building 51 as a timber shed with a mold loft on the second floor. It continued to be used in support of the wood working trades, ship construction, and as a repair storehouse until about 1900. Enclosure 4 shows building 51 after conversion to a structural shop with metal punching, rolling and shearing machines. About the same time (between 1903 and 1909), the second floor and attic of Building 51 were converted into administrative offices for the Navy Yard. All of the white collar activities except the Supply and Public Works departments were housed there.

The departments housed in Building 51 were: the Commandant's office; the office of the Chief Clerk; the Accounting office (time office); the Inspector's office; the Design department; the Planning and Estimating department; and the Stenographic pool and Messenger lobby.

The vaults were constructed circa 1910, but whether the attic was built as part of the original structure or was added at a later date is unknown. In 1918, the administrative functions were moved to Building No. 47A. At this time, the attic housed the Yard Photograph & Blueprint Unit. All blueprints were made by sunlight on rolling trams which were shoved out onto a porch on the roof. This attic also housed the reproduction units such as hectograph and mimeograph machines. For many decades prior to 1920., a time ball had been located on the roof of Building No. 51. This time ball, which was monitored by the Mare Island Observatory under the direction of Professor of Mathematics T. J. J. See, was dropped precisely at 12 noon each day, thereby setting the time for all ships in the bay.

This building was used until late 1978 in support of the Shipyard's mission, and has seen the construction of 513 naval crafts. These crafts span the range from sailing vessels through coal and oil-burning ships all the way to the nuclear powered vessels of today.

Sources:

- 1) Lott, Arnold S., A Long Line of Ships, Annapolis, 1954.
- 2) Lemmon, Sue & Witchels, E.D., Sidewheelers to Nuclear Power, Annapolis, 1977.
- 3) Wichels, E.D., Draft history of Buildings 51, 53, & 55, 1978.
- 4) Grapevine Articles, various dates.



